



Analysis Seminar

Title: Compact perturbations of normal operators: where are their invariant subspaces?

Speaker: Eva A. Gallardo Gutiérrez (Universidad Complutense de Madrid IICMAT)

Date: Tue 28th October 2025 at 3:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: In this talk, we will address the problem regarding the existence of non-trivial closed invariant subspaces of compact perturbations of normal operators acting boundedly on separable, infinite-dimensional complex Hilbert spaces. After considering the finite-rank case, we will show that a large class of such operators consists of decomposable operators (in the sense of Foias). Therefore, every operator in such a class has a rich spectral structure and plenty of non-trivial closed invariant subspaces, extending recent results of Foias, Jung, Ko, and Percy.

Based on joint works with F. J. González-Doña.

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